Claims

- [c1] An apparatus for compressing video comprising:

 an encoder further comprising means for producing a drift-aware bitstream and
 means for prioritizing transport of the drift-aware bistream, wherein a
 corresponding decoder can utilize the drift-aware bitstream to manage drift
 while decoding the compressed video.
- [c2] The apparatus of claim 1 wherein the encoder further comprises means for introducing drift incrementally.
- [c3] The apparatus of claim 1 wherein the encoder further comprises means for measuring the drift potentially being introduced.
- [c4] The apparatus of claim 1 wherein the encoder further comprises means for encoding options in the drift-aware bitstream that permit drift while simultaneously controlling the amount of drift.
- [c5] The apparatus of claim 1 wherein the encoder further comprises means for reducing or eliminating drift.
 - The apparatus of claim 1 wherein the encoder further comprises means for optimizing expected quality for the drift-aware bitstream across receivers.
- [c7] The apparatus of claim 1 wherein the apparatus is a computer-readable medium.

An apparatus for encoding compressed video comprising:

an input for receiving uncompressed video;
a first output for transmitting a base layer of the compressed video;
a second output for transmitting an enhancement layer of the compressed
video; and
an encoder capable of receiving video bits from the input, encoding the video in
a base layer and an enhancement layer, and sending the base layer to the first
output and the enhancement layer to the second output; and
a drift controller connected to the encoder which manages drift introduced into

the base layer of the compressed video.

[c6]

[c8]

		by including control information in the compressed video.
the state of the s	[c10]	The apparatus of claim 9 wherein the control information comprises an error prediction strategy.
	[c11]	The apparatus of claim 9 wherein the control information comprises adjustments to quantization.
	[c12]	The apparatus of claim 8 wherein the encoder further comprises: a coarse frame memory that depends only on the base layer; a fine frame memory that depends on the enhancement layer and the base layer, wherein the coarse frame memory and the fine frame memory provide predictions to the drift controller.
	[c13]	The apparatus of claim 8 further comprising a third output for transmitting a second enhancement layer of the compressed video, wherein the encoder and the drift controller do not allow errors from the second enhancement layer to propagate to the base layer.
	[c14]	The apparatus of claim 8 wherein the apparatus is a computer-readable medium.
	[c15]	An apparatus for decoding a compressed video stream comprising: a first error predictor capable of predicting error depending on base layer information in the compressed video stream; a second error predictor capable of predicting error depending on the base layer information and enhancement layer information in the compressed video stream; and a drift compensator capable of combining error predictions from the first and second error predictors in accordance with a drift management option included in the compressed video stream.
	[c16]	The apparatus of claim 15 wherein the first and second error predictors comprise a coarse and a fine motion-compensated frame memory respectively.

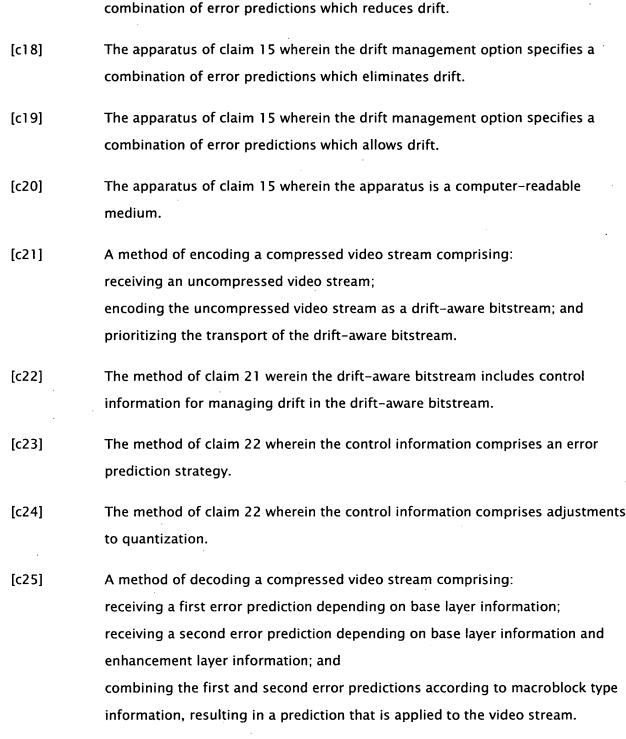
The apparatus of claim 15 wherein the drift management option specifies a

The apparatus of claim 8 wherein the drift controller selects an amount of drift

[c17]

[c9]

£w.
Lak
0
T)
Ц
FL.
£
lak:
ļ:
N)
Tup Ent
L.



[c26] The method of claim 25 wherein the first and second error predictions are received from a coarse and a fine motion-compensated frame memory respectively.

[c27] The method of claim 25 wherein combining the first and second error predictions reduces drift, in acordance with an option in the macroblock type



- [c28] The method of claim 25 wherein combining the first and second error predictions eliminates drift, in accordance with an option in the macroblock type information.
- [c29] The method of claim 25 wherein combining the first and second error predictions allows drift, in accordance with an option in the macroblock type information.